AMENDMENTS TO THE CLAIMS

Claim 1 (previously presented): A substantially pure O-Superfamily conopeptide comprising the amino acid sequence Xaa1-Cys-Ile-Xaa4-Ser-Gly-Asp-Leu-Cys-Phe-Arg-Ser-Asp-His-Ile-Gly-Cys-Cys-Ser-Gly-Lys-Cys-Ala-Phe-Val-Cys-Leu (SEQ ID NO:271), wherein Xaa1 is Trp or bromo-Trp and Xaa4 is Pro or hydroxy-Pro.

Claims 2-4 (canceled)

Claim 5 (previously presented). The substantially pure O-Superfamily conopeptide of claim 1, wherein Xaa1 is Trp.

Claim 6 (canceled)

Claim 7 (previously presented). The substantially pure O-Superfamily conopeptide of claim 1, wherein Xaa4 is Pro.

Claim 8 (previously presented). The substantially pure O-Superfamily conopeptide of claim 1, wherein Xaa4 is hydroxy-Pro.

Claim 9 (canceled)

Claim 10 (previously presented). The substantially pure O-Superfamily conopeptide of claim 1, wherein Xaa1 is 6-bromo-Trp.

Claims 11-14 (canceled)

Claim 15 (previously presented): A substantially pure conotoxin precursor comprising an amino acid sequence Leu-Arg-Trp-Cys-Ile-Pro-Ser-Gly-Asp-Leu-Cys-Phe-Arg-Ser-Asp-His-Ile-Gly-Cys-Cys-Ser-Gly-Lys-Cys-Ala-Phe-Val-Cys-Leu (SEQ ID NO:270).

Claim 16 (previously presented): A pharmaceutical composition comprising a conotoxin peptide or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier, said conotoxin peptide being the O-Superfamily conopeptide of claim 1.

Claim 17 (previously presented): A pharmaceutical composition comprising a conotoxin peptide or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier, said conotoxin peptide being the O-Superfamily conopeptide of claim 39.

Claim 18 (previously presented): A method for regulating the flow of sodium through sodium channels in an individual in need thereof which comprises administering a therapeutically effective amount of the O-Superfamily conopeptide of claim 1 or a pharmaceutically acceptable salt thereof.

Claim 19 (previously presented): A method for treating or preventing disorders associated with voltage gated ion channel disorders in which comprises administering to a patient in need thereof a therapeutically effective amount of the O-Superfamily conopeptide of claim 1 or a pharmaceutically acceptable salt thereof.

Claim 20 (currently amended): The method of claim 18, wherein said individual in need

thereof suffers from a disorder selected from the group consisting of multiple sclerosis, a demyelinating disease, sub-acute sclerosing panencephalomyelitis (SSPE), metachromatic leukodystrophy, Pelizaeus-Merzbacher disease, spinal cord injury, a compression and entrapment ~~neurophathy~~ neuropathy, and a cardiovascular disorder.

Claim 21 (original): The method of claim 19, wherein said disorder is a neurologic disorder.

Claims 22-28 (canceled)

Claim 29 (original): The method of claim 19, wherein said disorder is a cardiovascular disorder.

Claims 30-38 (canceled)

Claim 39 (previously presented): The substantially pure O-Superfamily conopeptide of claim 1, wherein Xaa1 is Trp and Xaa4 is Pro.

Claim 40 (previously presented): A pharmaceutical composition comprising a conotoxin peptide or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier, said conotoxin peptide being the conotoxin protein precursor of claim 15.

Claim 41 (previously presented): The method of claim 18, wherein the demyelinating disease is selected from the group consisting of acute disseminated encephalomyelitis, optic neuromyelitis, adrenoleukodystrophy, acute transverse myelitis and progressive multifocal

leukoencephalopathy.

Claim 42 (currently amended): The method of claim 18, wherein the compression and entrapment ~~neurophathy~~ neuropathy is selected from the group consisting of carpal tunnel syndrome and ulnar nerve palsy.

Claim 43 (currently amended): The method of claim 18, wherein the cardiovascular disorder is ~~select4ed~~ selected from the group consisting of cardiac arrhythmias and congestive heart failure.